1

401

EQUALIZATION
CONVERTER
400

CONTROL UNIT
500

SWITCHES
300

100

105

HEV
MOTOR
200

Fig. 1

Fig. 2

discharging → $\frac{1}{5}A$

charging ↝ $\frac{4}{5}A$

$\frac{1}{5}A$

discharging

105

$\frac{1}{5}A$

1A

V_2

1A

412 (BUCK)

a   b

CONTROL UNIT 500

100

FIG. 3A

charging ～ $\frac{1}{5}$A

$\frac{1}{5}$A

1A →

discharging ～ $\frac{4}{5}$A V_3

← 1.A

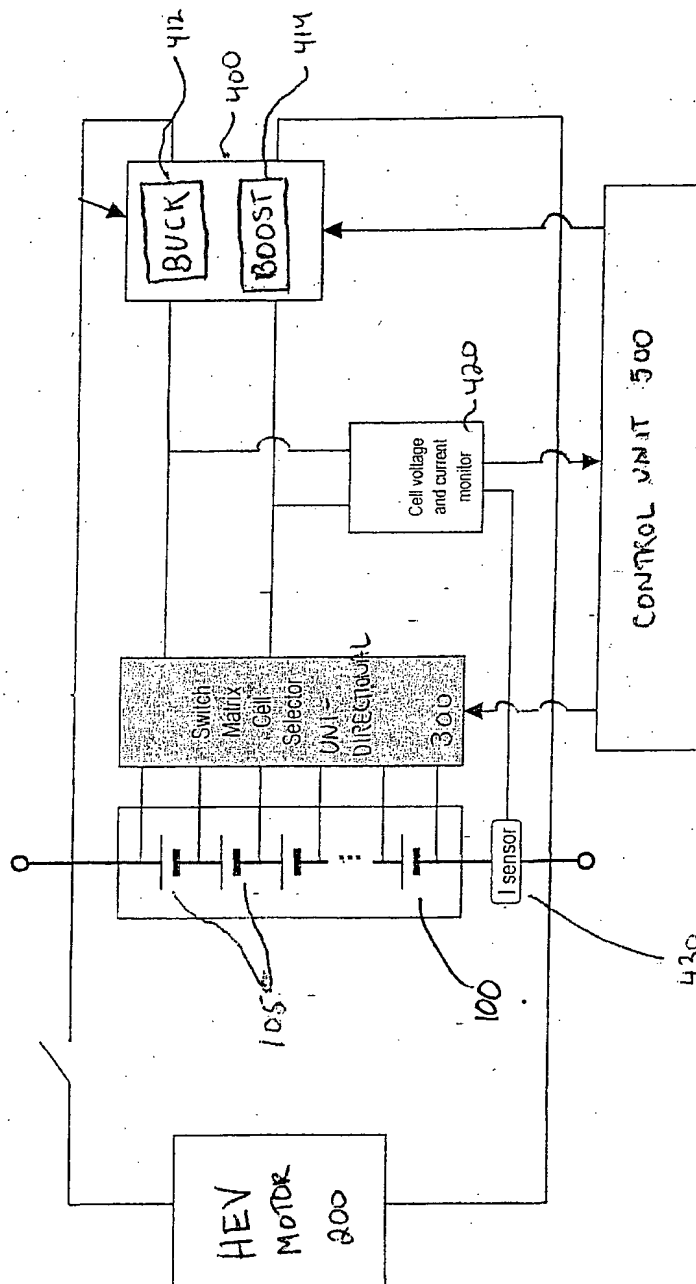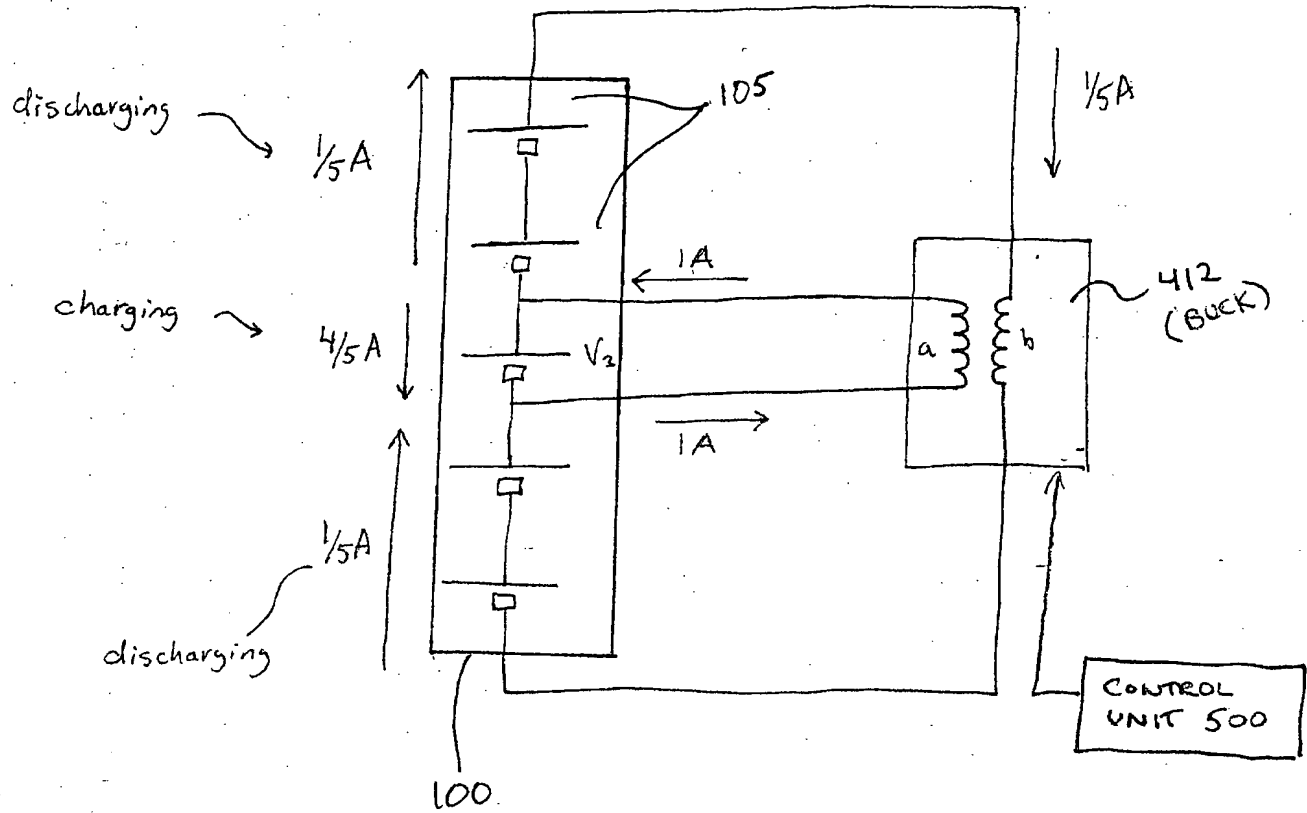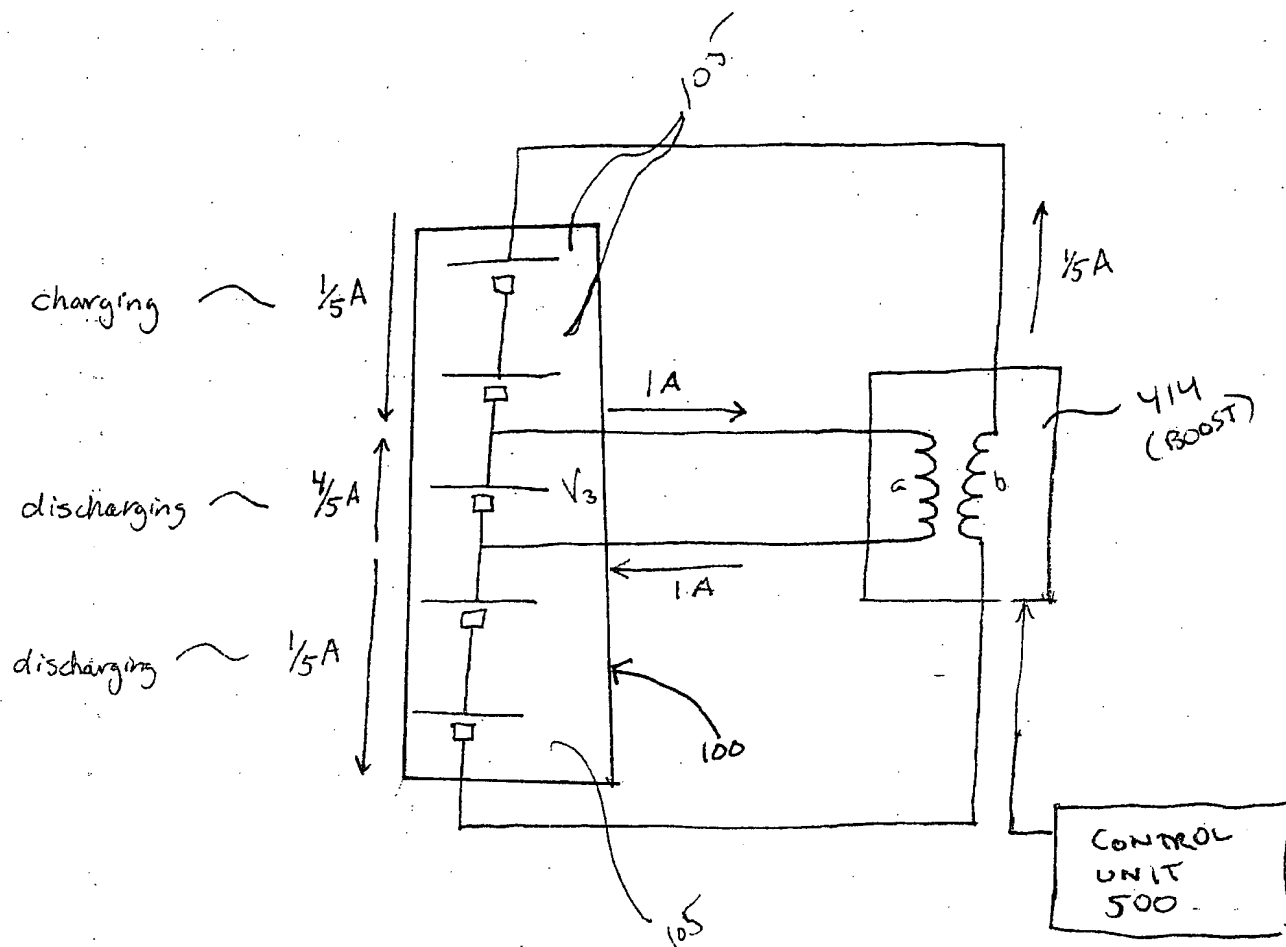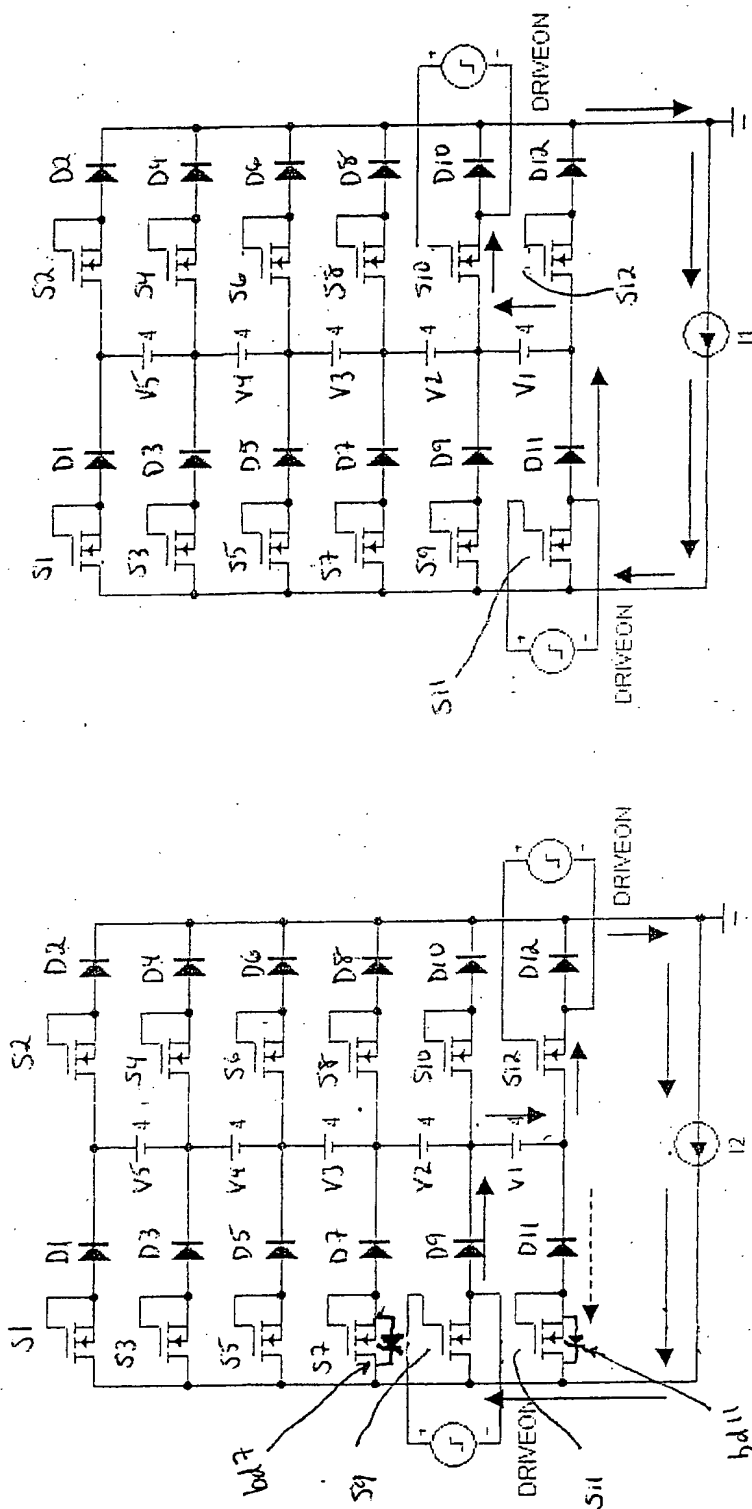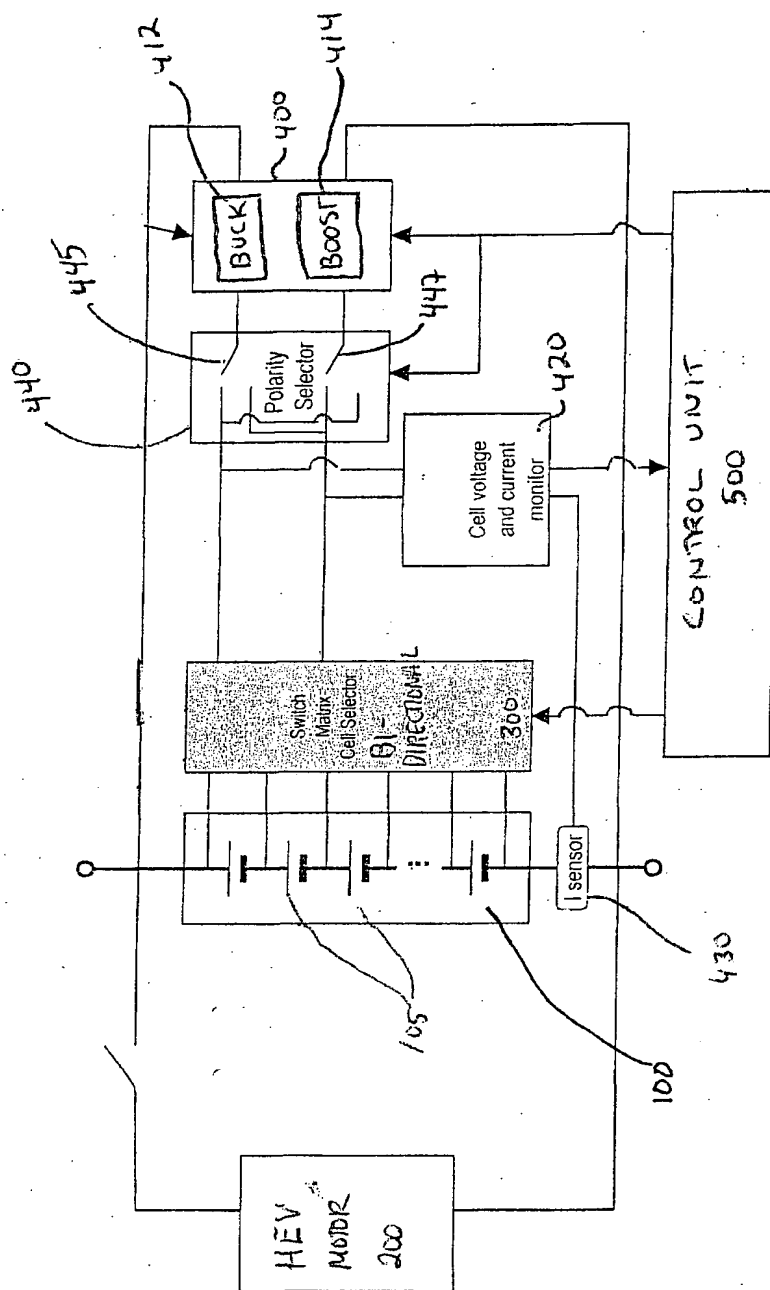discharging ～ $\frac{1}{5}$A

414
(BOOST)
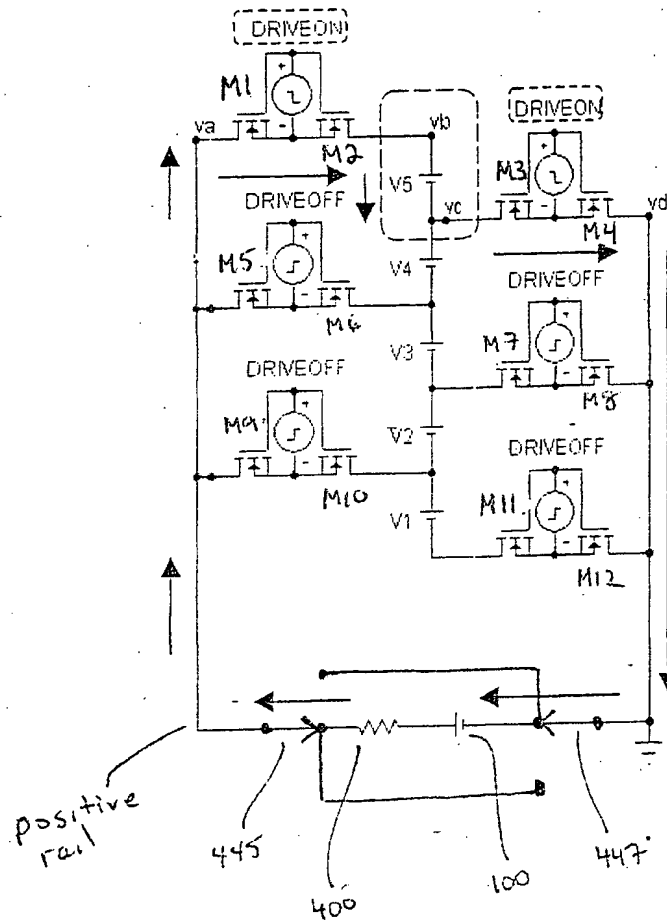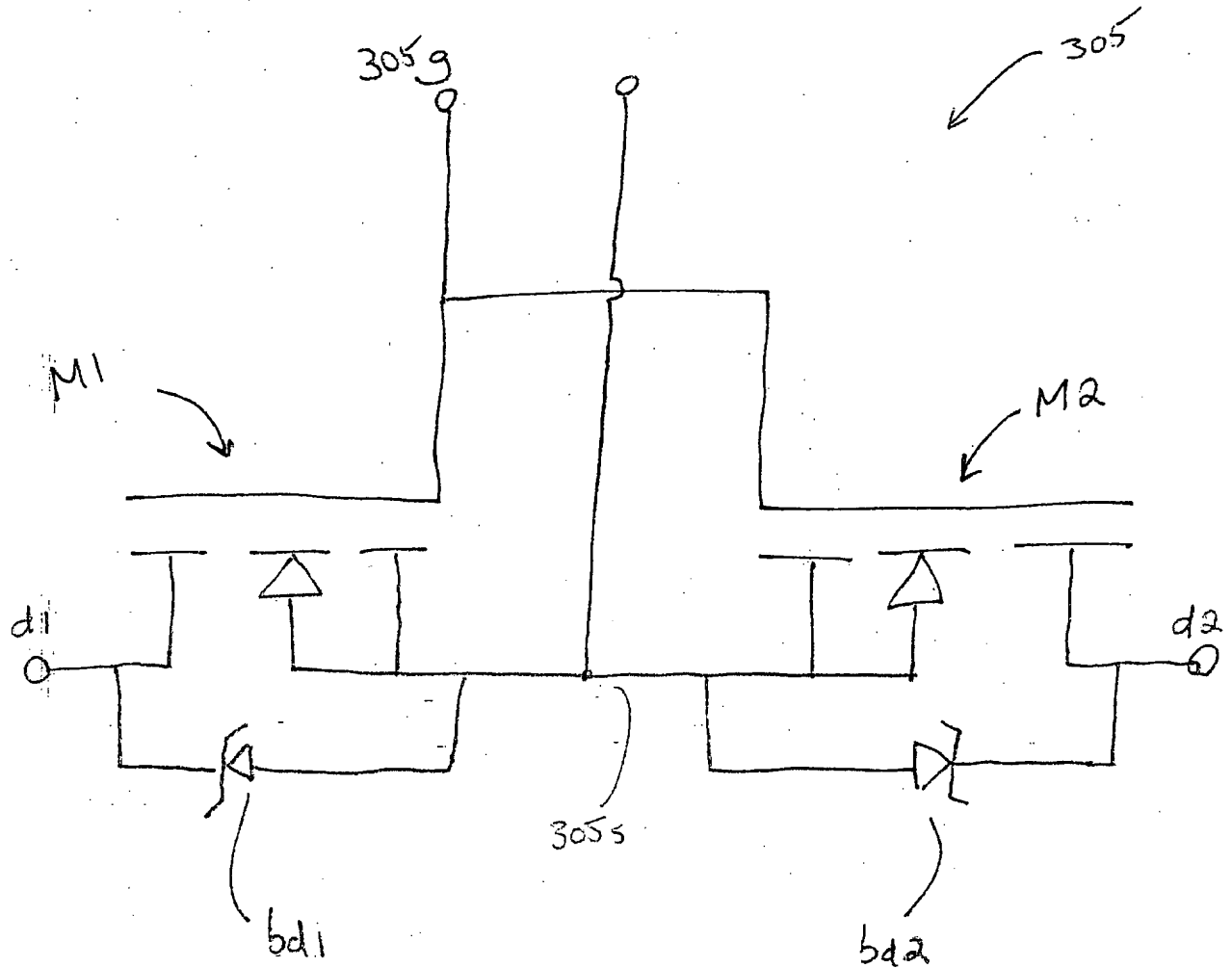
100

105

CONTROL
UNIT
500.

FIG. 3B

Fig. 4B

Fig. 4A

FIG. 5

FIG. 6A

FIG. 6B

FIG. 7A

FIG. 7B
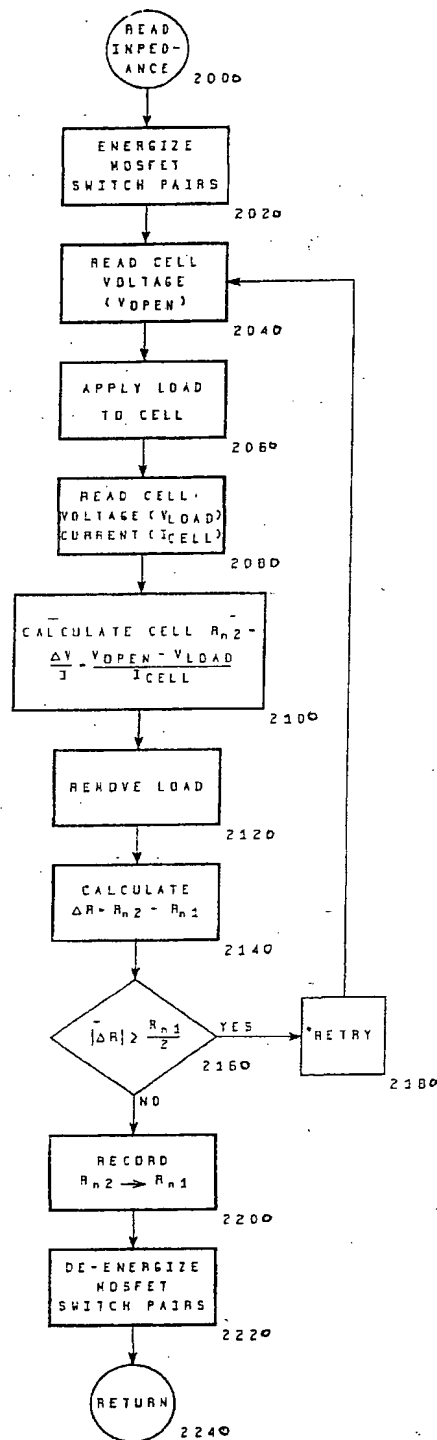
FIG. 7C
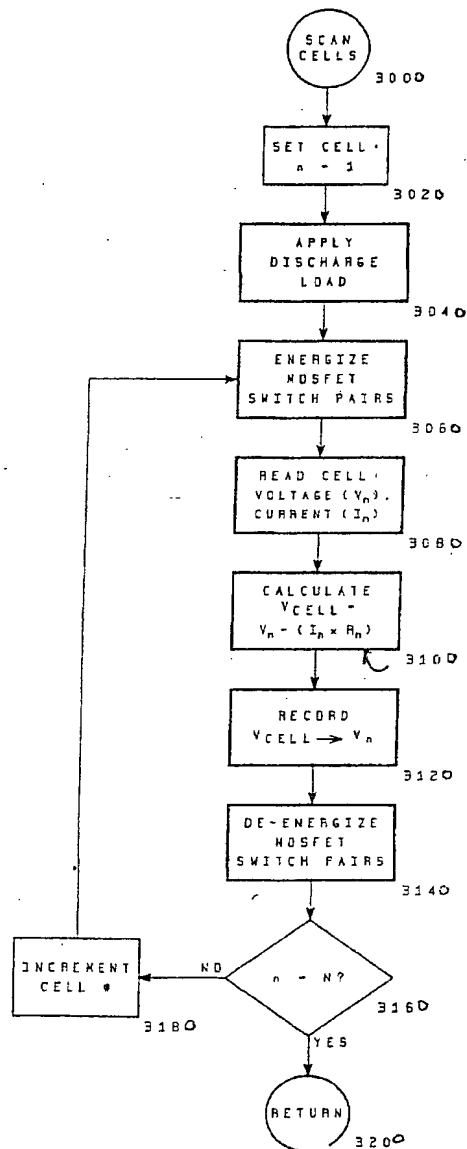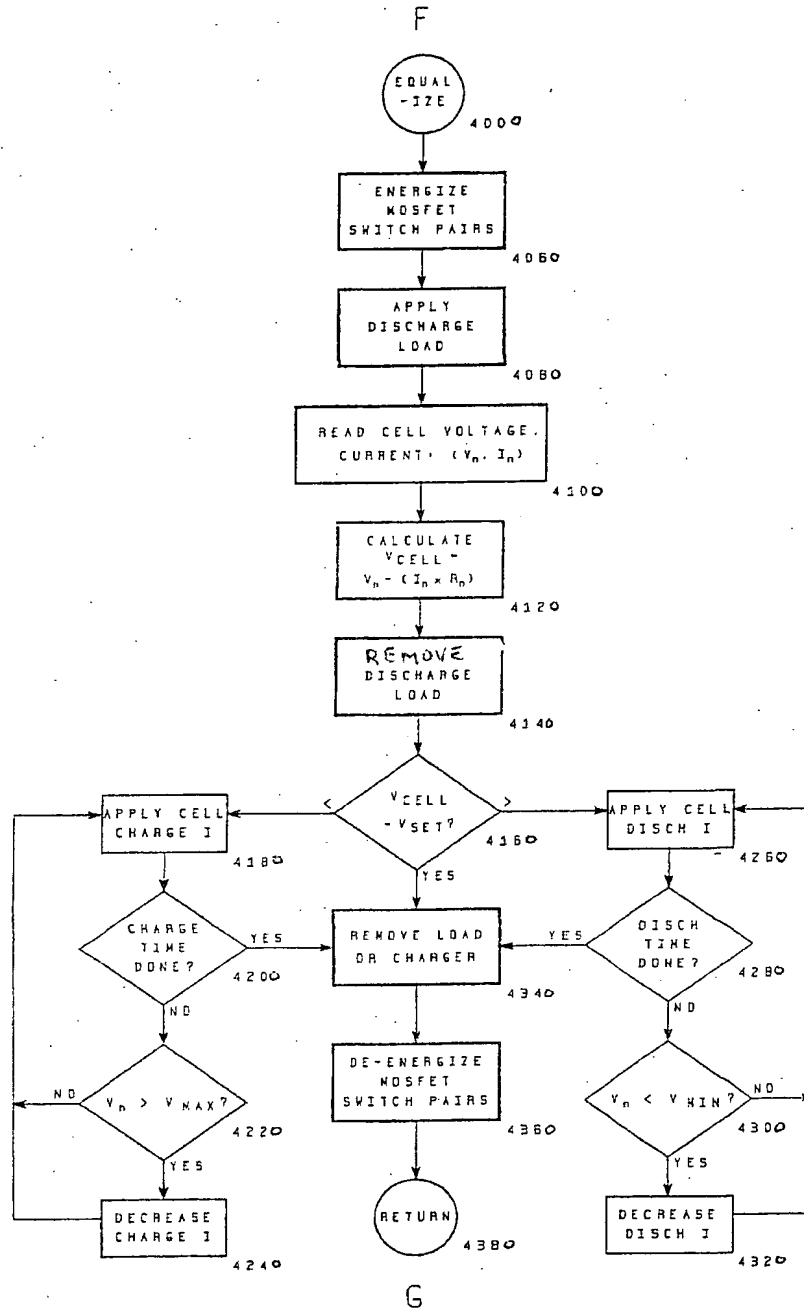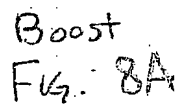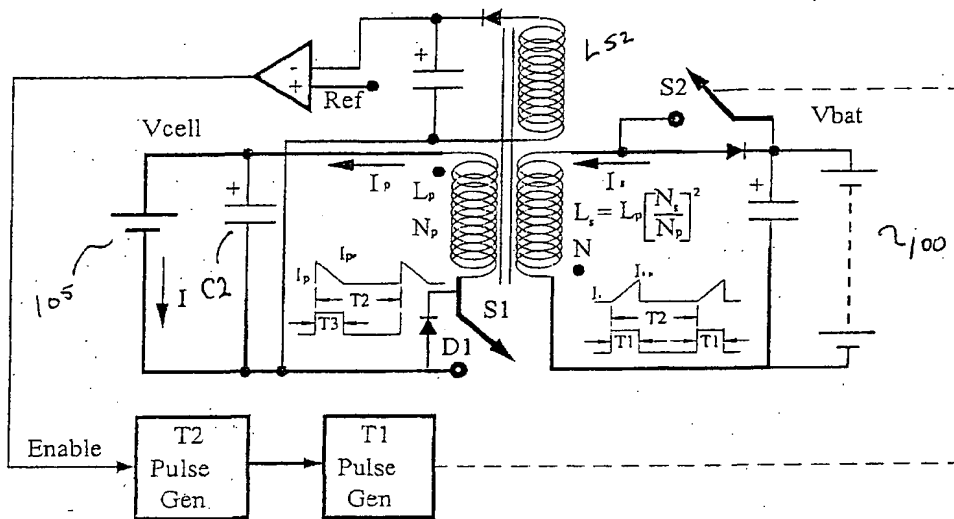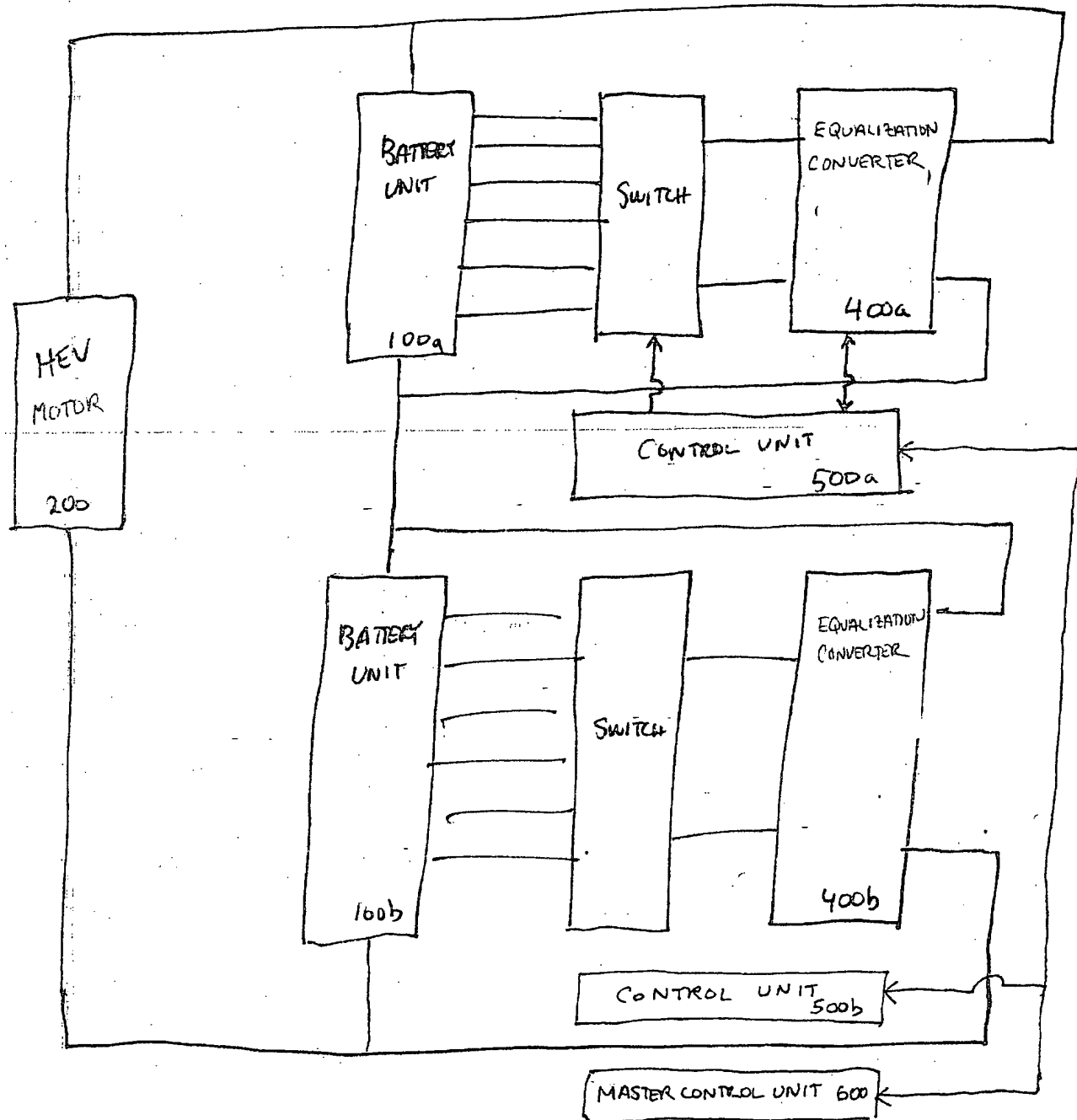
FIG. 7D

Boost
FIG. 8A

Buck

FIG 8B

FIG. 9

Fig. 10

Fig. 11

FIG. 12